

Fig. 4

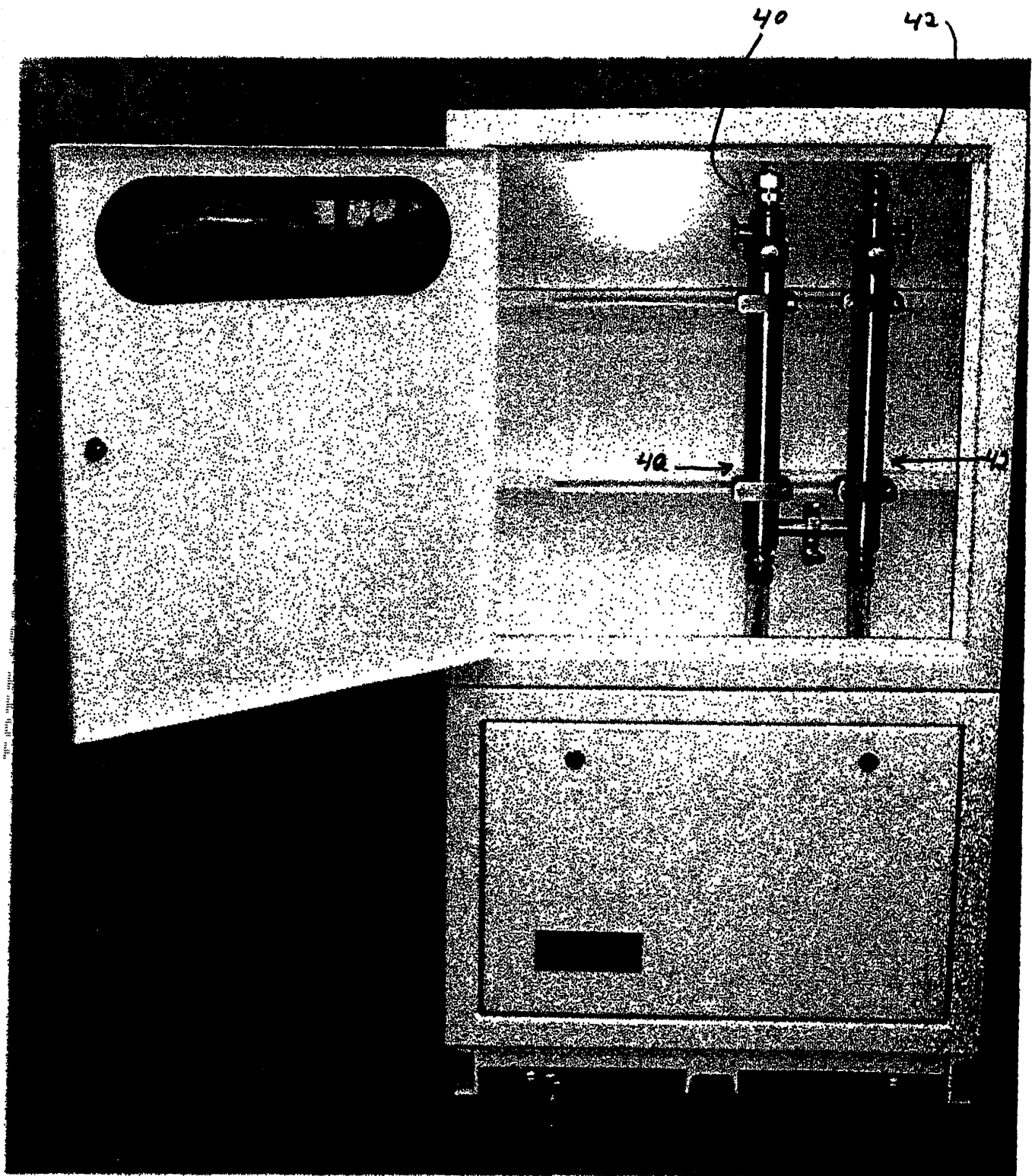
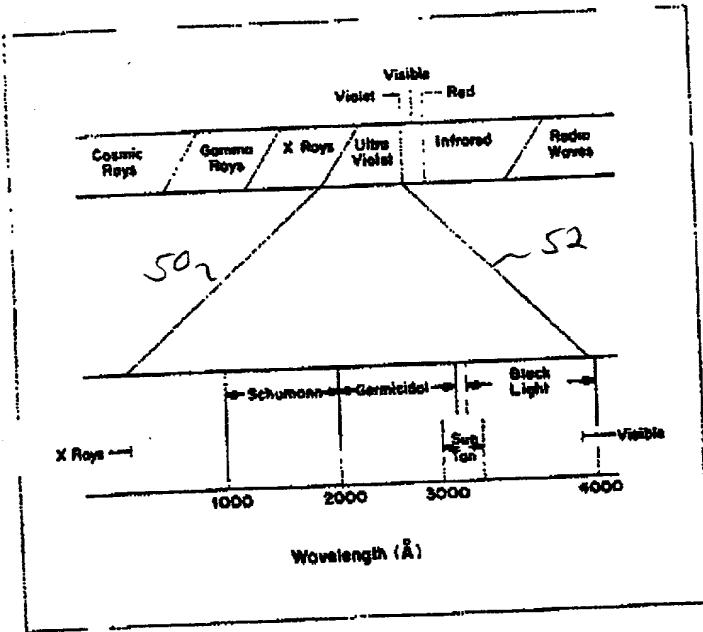
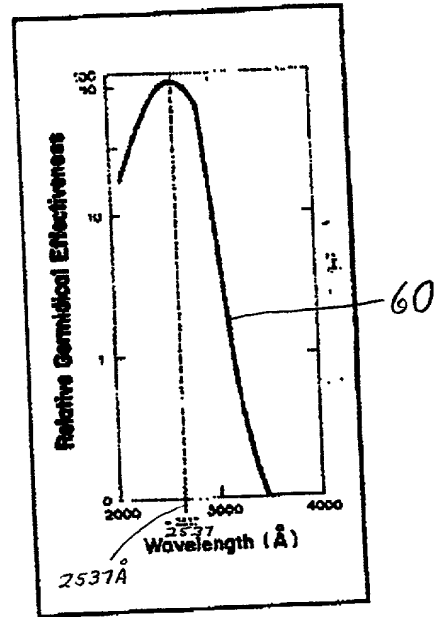


FIG. 5



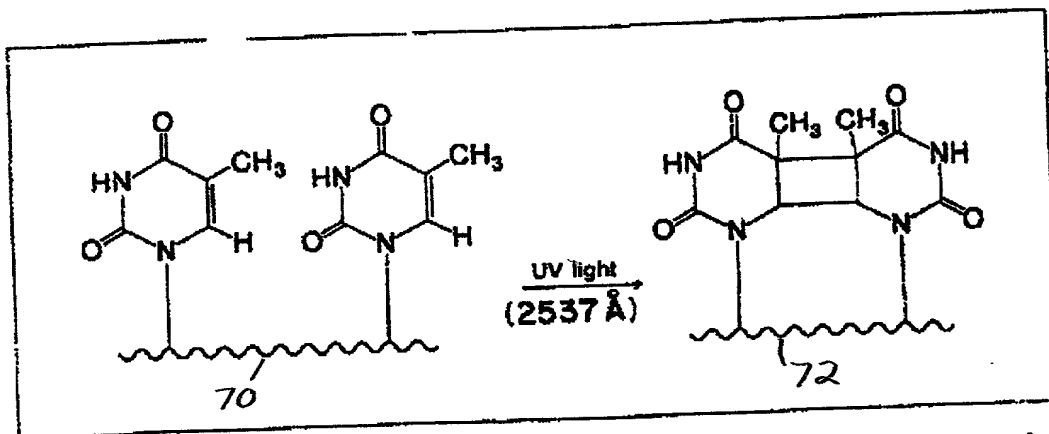
Electromagnetic spectrum (enlargement of ultraviolet region).

FIG. 6



Bacterial effectiveness curve showing the relative effectiveness of various wavelengths in killing bacteria.

FIG. 7



Ultraviolet light causes adjacent thymines (or cytosines) in DNA to dimerize. The rippled lines at the bottom of the structures represents the deoxyribose-phosphate backbone of the DNA strand.

FIG. 8

Result of E- Coli Culture Tests on E-Coli 0157:H7

Culture Read on Cider 9/4/98 (Blood Agar Plates - 3 Dilutions)

	Cider SIAD Treated 1	Cider SIAD Treated 2	Cider Control E. coli-Not Treated	Cider Cont No E. Coli
.5cc	No Growth	No Growth	Confluent Growth	No Growth
.1cc	No Growth	No Growth	Some Confluent Growth >10,000 col/ml E.Coli	No Growth
.001cc	No Growth	No Growth	75,000 col/ml E. Coli	No Growth

FIG. 9

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5 GAL. TROPICANA GROVESTAND™ LOTS OF PULP™ ORANGE JUICE. NO ADDED SUGAR. NO ADDED PRESERVATIVES.

[illegible]

NOTE: SUCRAB CONTENT REMAINED CONSTANT IN ALL TRIALS

NOTE: SUGAR
TEMP1=LAMP1

TEMP2=LAMP2

TUBE1=(IN)OUTSIDE
TUBE2=(OUT)OUTSIDE

TEMP3=JUICE IN
TEMP4=JUICE OUT

**LAMP(V)=LAMP1
ECOL1 100%=10LOG**

FIG. 10

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TEST ON E-COLI (ATCC11229) INOCULATED ORANGE JUICE

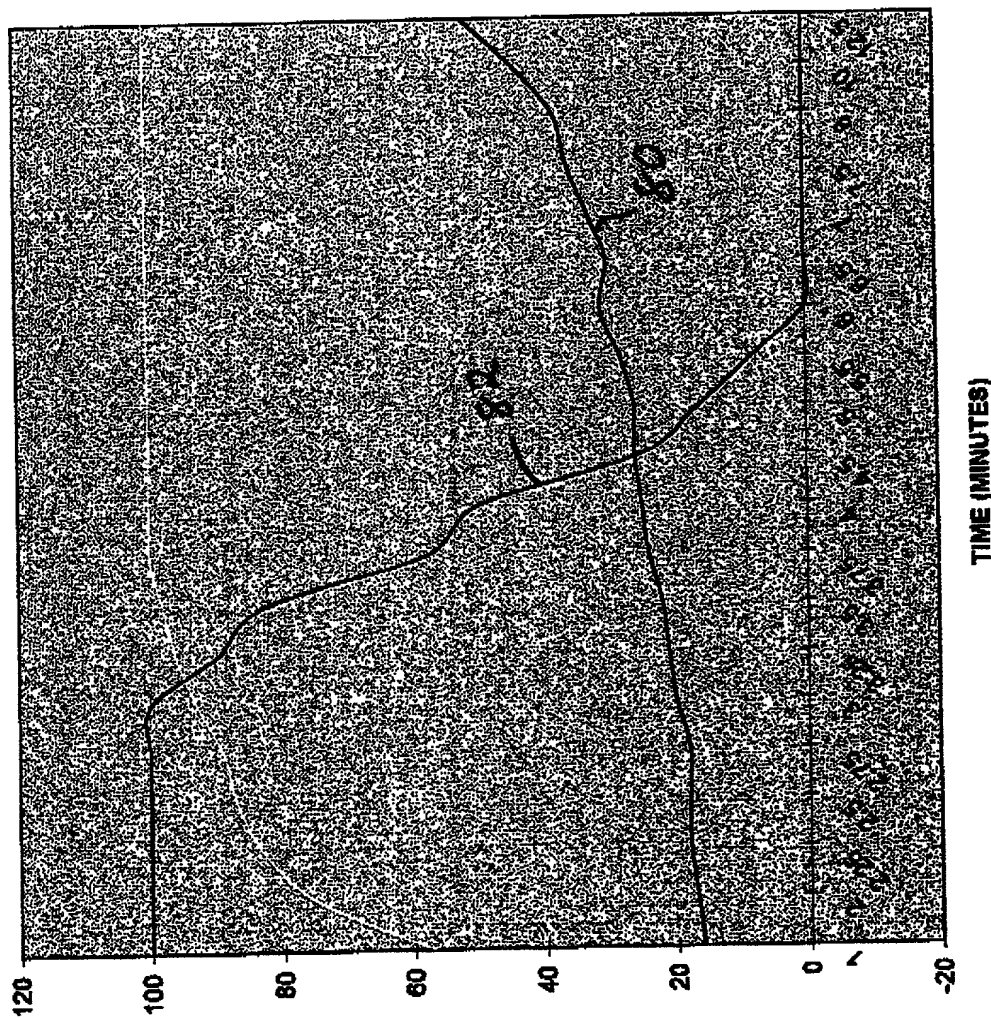


FIG. 11

5 GAL. TROPICANA GROVESTAND "LOTS OF PULP" ORANGE JUICE INOCULATED WITH E-COLI ATCC 25922

TRIAL	TIME(MIN)	TEMP1(F)	TEMP2(F)	PRIM.1	PRIM.E	LAMP(W)	GPM	TUBE1(F)	TUBE2(F)	TEMP3(C)	TEMP4(C)	ECOLI(%)
1	1	175	175	8.5	238	2008.00	10	70	70	16	16	100
2	2	225	225	10.8	238	2548.80	10	70	70	16	17	100
3	2.25	235	235	11	238	2598.00	10	70	72	17	18	100
4	2.5	240	240	11.5	236	2714.00	10	72	74	17	18	100
5	2.75	245	245	11.5	235	2702.50	10	73	75	18	18	100
6	3	250	250	11.8	235	2773.00	10	75	78	18	20	100
7	3.25	260	260	11.8	235	2773.00	10	75	78	20	22	92
8	3.5	270	270	12.5	235	2937.50	10	76	80	21	22	83
9	3.75	280	280	13.3	235	3125.50	10	78	82	21	24	58
10	4	300	300	13.3	235	3125.50	10	80	85	23	25	50
11	4.5	300	300	13.3	235	3125.50	10	82	88	23	28	50
12	5	300	300	13.3	235	3125.50	10	85	90	25	26	50
13	5.5	300	300	13.3	235	3125.50	10	87	92	26	28	41
14	6	300	300	13.3	235	3125.50	10	88	93	26	30	41
15	6.5	300	300	13.3	238	3138.80	10	92	95	28	30	25
16	7	300	300	13.3	235	3125.50	10	95	100	30	33	8
17	7.5	300	300	13.3	235	3125.50	10	100	105	32	36	0
18	8	300	300	13.3	235	3125.50	10	100	105	34	37	0
19	10	300	300	13.3	235	3125.50	10	100	105	38	42	0
20	12.5	305	305	13.3	235	3125.50	10	110	112	43	51	0

NOTE: SUGAR CONTENT REMAINED CONSTANT IN ALL TRIALS

TEMP1=LAMP1

TEMP2=LAMP2

TUBE1=(IN)OUTSIDE

TUBE2=(OUT)OUTSIDE

TEMP3=JUICE IN

TEMP4=JUICE OUT

LAMP(W)=LAMP1

ECOLI 100%=10LOG

FIG. 12

TEST ON E-COLI (ATCC 25922) INOCULATED ORANGE JUICE

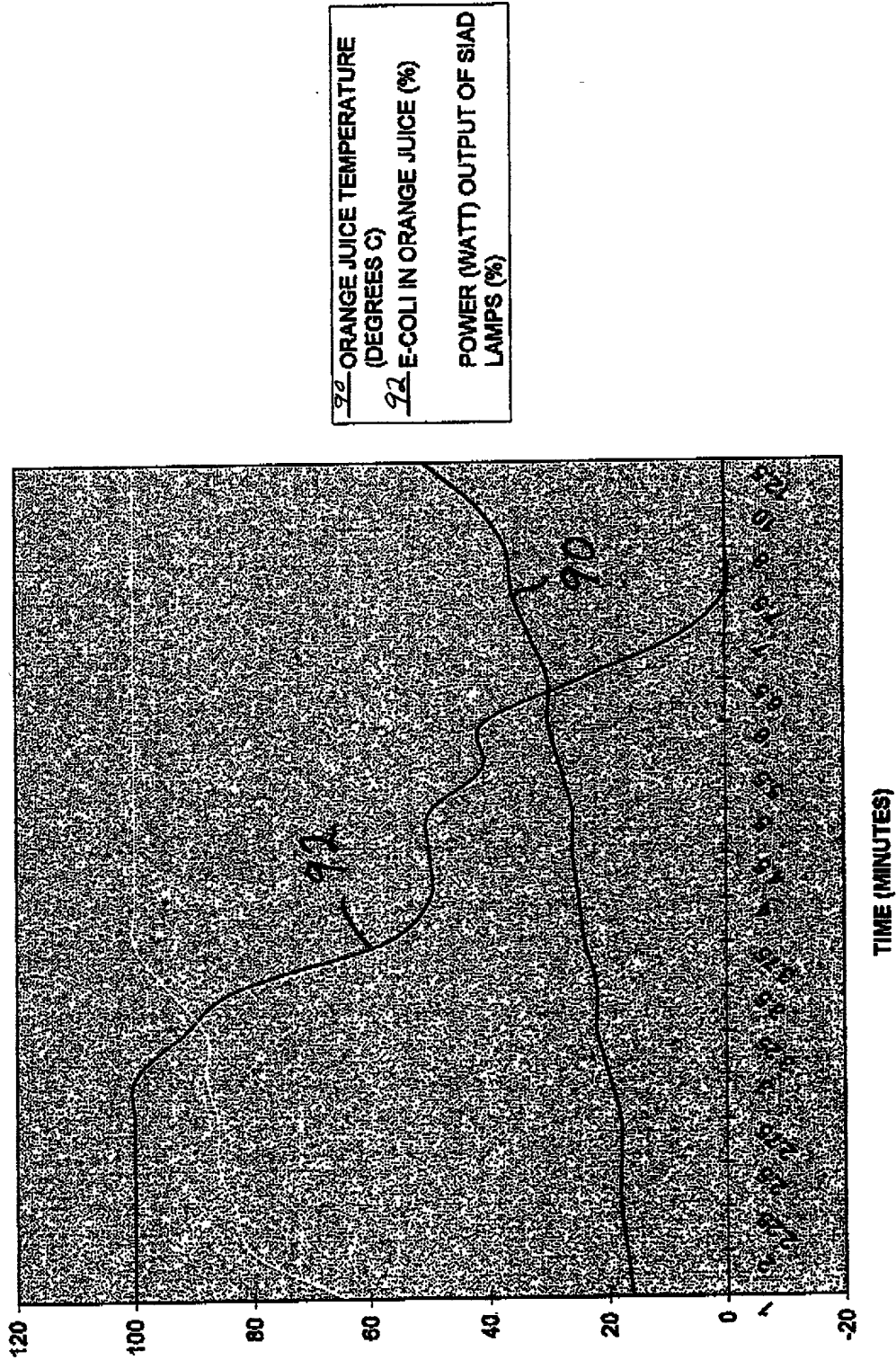


FIG. 13